CHAP. XXII.

PLATE XVII. OF BRIDGES OF WOOD.

THE important objection to bridges of wood, is their rapid decay: and this objection is certainly well founded, when particular ſituations are alluded to, where timber is ſcarce, and conſequently expenſive; but in ſuch countries as America, where wood is abundant, I conceive it will be a fair criterion to judge of their application, by calculating on the expence of a bridge of ſtone and one of wood; then compare the intereſt of the principal ſaved in adopting the wood-bridge, with the expence of its annual repairs.

I have before exhibited the neceſſity of conſtructing bridges in America, of an extenſive ſpan or arch, in order to ſuffer the ice and collected waters to paſs without interruption: and for this purpoſe, it muſt be obſerved, that a wood arch may be formed of a much greater length, or ſpan, than it is poſſible to erect one of ſtone; hence they are applicable to many ſituations, where accumulated waters, bearing down trees and fields of ice, would bruſh a bridge of ſtone from its foundation.

It therefore becomes of importance, to render bridges of wood as permanent as the nature of the material will admit.

Hitherto the immenſe quantity of mortiſing and tennants, tenons which however well done, will admit air and wet, conſequently tend to expedite the decay of the weak parts, has been a material

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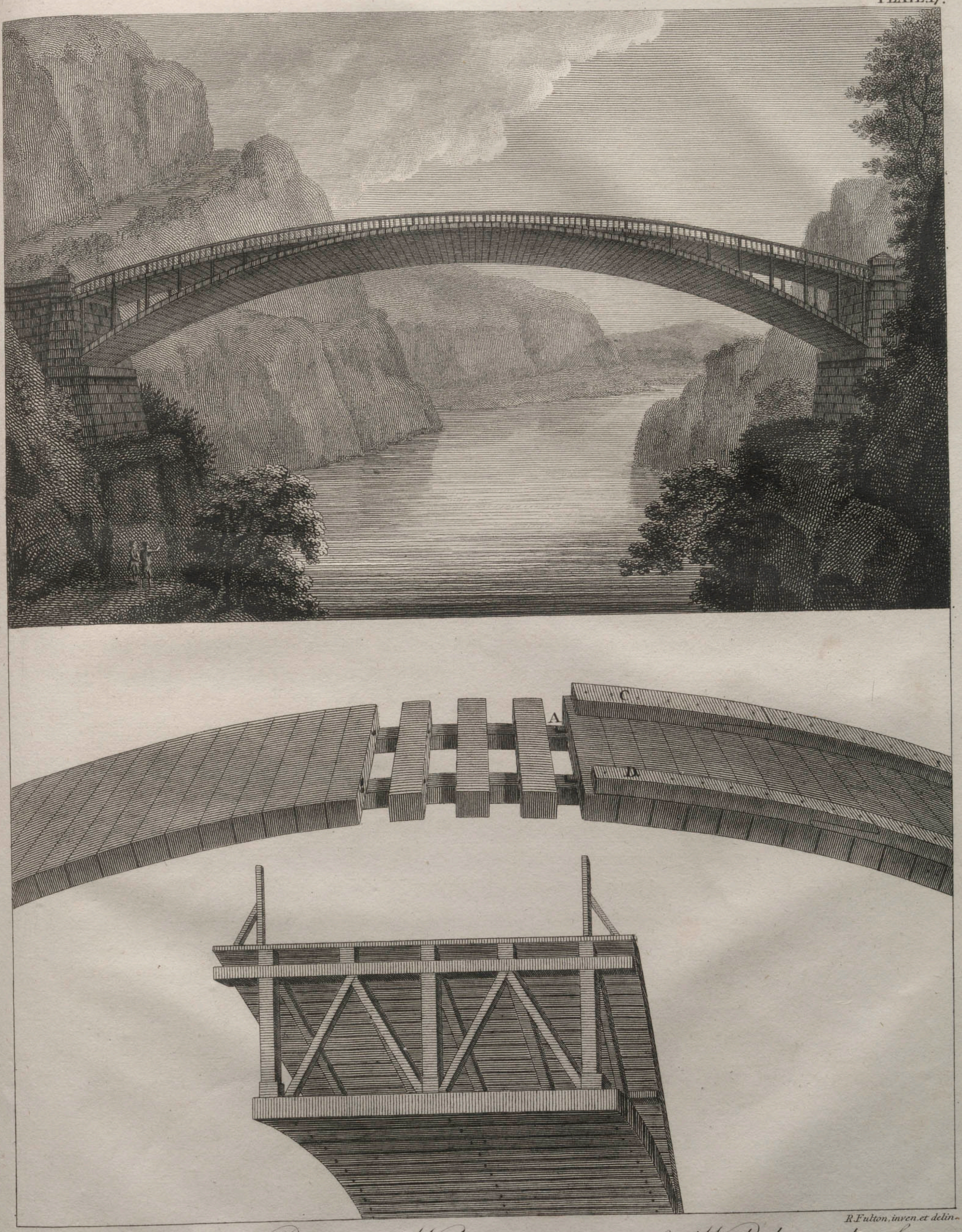

R. Fulton, inven. et delin.

Design for a Bridge of Wood, Scale 1 Inch to 50 feet, With the mode of Combining the Timbers.

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